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If a whole or part of a paragraph has been amended, the date of the amending regulation appears in square brackets at the end of the paragraph. If a whole paragraph or sub-paragraph has been deleted, the date of the deletion appears in square brackets beside the deleted paragraph or sub-paragraph.

Republic of Latvia

Cabinet

Regulation No. 34

Adopted 22 January 2002

## **Regulations Regarding Discharge of Polluting Substances into Water**

*Issued pursuant to  
Section 11, Paragraph two, Clause 2,  
Section 18, Paragraph two, Clause 1,  
Section 45, Paragraph one and  
Section 46, Paragraph two of  
the Law On Pollution*

### **I. General Provisions**

1. This Regulation prescribes:

1.1. the threshold values for wastewater discharge and prohibitions for discharge of polluting substances into water;

1.2. those highly sensitive territories to which increased requirements for the urban wastewater treatment apply, the criteria for determination, procedures for management and the boundaries of such territories;

1.3. the procedures by which an operator shall control the quantity of discharge of polluting substances, perform monitoring and provide the relevant information;

1.4. the procedures by which the State limited liability company "Latvian Environment, Geology and Meteorology Centre" (hereinafter – Centre) shall ensure public accessibility to the information.

*[16 January 2007; 27 July 2010]*

2. This Regulation shall apply to all waters:

2.1. surface waters:

2.1.1. [19 February 2013];

2.1.2. [19 February 2013];

2.1.3. [19 February 2013];

2.1.4. [19 February 2013];

2.2. ground waters;

2.3. wastewaters (waters which due to the activities of humans have changed their initial physical, chemical or biological properties) including:

2.3.1. domestic wastewater (wastewater originating from public and residential buildings and places for provision of public services due to various physiological, hygiene and household activities);

2.3.2. run-off rain water (waters which form from atmospheric deposition by flowing down from the roofs of buildings, streets and other territories with a full or partial surface cover);

2.3.3. industrial wastewater (wastewaters originating from entrepreneurship or in industrial sites and may not be classified as domestic wastewater nor run-off rain water);

2.3.4. urban wastewater (domestic wastewater, a mixture of domestic wastewater with industrial wastewater and run-off rain water).

*[19 February 2013]*

3. Measures connected with implementation of requirements of this Regulation may not directly or indirectly increase water, air or soil pollution.

4. In performing discharge into water, the environmental quality objectives laid down in the Water Management Law (hereinafter – environmental quality objectives) and water quality standards shall be taken into account. If it is required to receive a Category A or Category B permit (hereinafter – permit) for discharge of pollution into water in accordance with the Law On Pollution, the regional environmental board of the State Environmental Service (hereinafter – regional environmental board) shall co-ordinate the conditions of the permit with the relevant environmental quality objectives and water quality standards, as well as shall take them into account upon issuing a certification of Category C polluting activity.

*[19 February 2013]*

5. If wastewater contains the substances referred to in Chapter II of this Regulation, the conditions referred to in Chapters III and IV of this Regulation shall be applied for the discharge thereof into the water.

*[16 January 2007; 27 July 2010]*

6. In order to restrict the discharge present in the surface waters, the operator shall use the best available technical methods or environmental abatement technologies.

## **II. Priority Substances, also Particularly Dangerous Substances and Dangerous Substances to the Aquatic Environment**

*[27 July 2010]*

7. Priority substances, also particularly dangerous substances to the aquatic environment, are chemical substances, which present a significant risk to the aquatic environment (hereinafter – priority substances). Particularly dangerous are substances which are toxic, stable in the aquatic environment and may accumulate in the biota.

*[27 July 2010]*

8. There are the following groups of priority substances:

8.1. organohalogen compounds and substances which may form such compounds in the aquatic environment;

8.2. organophosphorus compounds;

8.3. organotin compounds;

8.4. substances which possess carcinogenic properties in or via the aquatic environment also substances referred to in Paragraph 12 of this Regulation, if they possess carcinogenic properties;

- 8.5. mercury and its compounds
- 8.6. cadmium and its compounds
- 8.7. persistent mineral oils and hydrocarbons of petroleum origin;
- 8.8. persistent synthetic substances which may float, remain in suspension or sink and which interfere with the use of water.

*[27 July 2010]*

9. A substance belonging to a group of priority substances shall not be considered as particularly dangerous to the aquatic environment, if it is not biologically harmful or rapidly converts into a biologically harmless substance.

*[27 July 2010]*

10. Priority substances are specified in Annex 1 to this Regulation.

*[27 July 2010]*

11. Chemical substances dangerous to the aquatic environment are those where the deleterious effect of their discharge depends on the characteristics of the accepting waters and may be restricted within a certain area (hereinafter – dangerous substances).

12. There are following groups of dangerous substances:

12.1. metals, metalloids and their compounds including zinc, copper, nickel, chromium, lead, selenium, arsenic, antimony, molybdenum, titanium, tin, barium, beryllium, boron, uranium, vanadium, cobalt, thallium, tellurium and silver;

12.2. biocides and substances or products obtained in reactions;

12.3. substances which have a deleterious effect on the taste or smell of products intended for consumption derived from the aquatic environment, as well as chemical substances and chemical products liable to give rise to such substances in water;

12.4. toxic or persistent (stable) organic compounds of silicon, and substances which may give rise to such compounds in water, excluding those which are biologically harmless or are rapidly converted in water into biologically harmless substances;

12.5. phosphorus and inorganic compounds of phosphorus;

12.6. non-persistent (non stable) mineral oils and hydrocarbons of petroleum origin;

12.7. cyanides and fluorides;

12.8. substances which have an adverse effect on the oxygen content in water, particularly ammonia and nitrites.

13. Dangerous substances are specified in Annex 2 of this Regulation.

14. The Centre shall compile and register the information regarding priority substances and dangerous substances which are discharged into the aquatic environment, as well as regarding the importers, users and producers of the referred to substances in Latvia and the imported, used and produced amounts of the relevant substances.

*[27 July 2010]*

15. The Ministry of Environmental Protection and Regional Development shall evaluate the information referred to in Annex 2 to this Regulation not less than once in four years on the basis of:

15.1. data regarding the dangerousness of the substance or group of substances to the aquatic environment and human health;

15.2. the aquatic environment quality standards specified in laws and regulations;

15.3. the results of the risk assessment of the substance;

15.4. the amount of the imported, produced and used substance, as well as the conditions for use or storage;

15.5. substantiated proposals and expert opinions submitted by natural persons and legal persons.

*[16 January 2007; 27 July 2010; 19 February 2013]*

16. The Ministry of Environmental Protection and Regional Development shall inform the public and environment protection and health protection State institutions regarding the course of assessment and shall analyse the recommendations received.

*[19 February 2013]*

### **III. Discharge of Priority Substances and Dangerous Substances into Surface Waters**

*[27 July 2010]*

17. The requirements laid down in this Chapter shall apply to the discharge of priority substances or dangerous substances into the surface waters, except for discharge which has been caused after disposal of excavated material, deepening of the bed of the water body or discharge caused by the operation of ships in the territorial sea of the Republic of Latvia.

*[19 February 2013]*

18. An operator may perform discharge of priority substances or dangerous substances into the surface waters, not exceeding the discharge limits specified in the permits for Category A or B polluting activities (hereinafter – permit).

*[16 January 2007; 27 July 2010]*

19. An operator shall indicate the following information in an application for the receipt of a permit:

19.1. all priority substances or dangerous substances already used in the relevant equipment or produced or formed in the production process;

19.2. substances which an operator has foreseen to use and which may form during the process of the polluting activity, if the polluting activity has not been commenced yet or significant changes in the present polluting activity are planned;

19.3. results of the monitoring performed by an operator regarding the substances referred to in Sub-paragraph 19.1 of this Regulation, which were detected in the wastewater at the point of discharge thereof. If wastewater does not contain (or it is foreseen that it will not contain) priority substances or dangerous substances and they are not or will not be discharged in receiving waters, it shall be substantiated documentarily with the results of testing or calculation method in accordance with the raw material mass balances;

19.4. the concentration of priority substances or dangerous substances detected in the wastewater or foreseeable concentration in receiving waters above and below the point of discharge of the wastewater.

*[27 July 2010]*

20. The regional environmental board shall include the following information in the conditions of the permit:

20.1. a prohibition to discharge certain priority substances or dangerous substances, if it is necessary for the protection of the quality of surface waters;

20.2. discharge limits of priority substances and dangerous substances into surface waters. The maximum permissible concentration and maximum permissible amount shall be indicated for priority substances;

20.3. *[19 February 2013]*;

20.4. the requirement to use the methods of analysis for the monitoring of priority substances and dangerous substances and to conform to the procedures for the provision and control of the quality of results which ensure the fulfilment of the requirements laid down in the laws and regulations regarding the monitoring of surface waters, ground waters and protected territories and the drawing up of monitoring programmes for chemical monitoring of the water condition;

20.5. the term for fulfilment of the conditions of the permit referred to in this Paragraph, if the permit is intended for the present polluting activity;

20.6. a condition that the concentration of priority substances and dangerous substances in the aquatic environment, sediments, molluscs, crustaceans and fish may not significantly increase due to the polluting activity, and the requirements for monitoring in order to control the fulfilment of this condition;

20.7. the requirement to develop and submit a programme for the decrease of pollution to the regional environmental board within the period of time specified in the permit. An operator shall provide in the programme the most suitable techniques for the replacement, recovery and recycling of the relevant substances, if the pollution with the substances referred to in Annexes 1 and 2 to this Regulation is caused by sources to which discharge threshold values or limits cannot be applied;

20.8. the requirements for performance of monitoring referred to in Chapter VII of this Regulation.

*[27 July 2010; 19 February 2013]*

20.<sup>1</sup> By including the conditions referred to in Sub-paragraph 20.6 of this Regulation in a permit, the regional environmental board shall, upon applications of the operator, assess the possibility to determine a mixing zone in the surface waters below the point discharge point of priority substances or dangerous substances. In the mixing zone the concentration of one or several substances referred to in Annex 1 or 2 to this Regulation may exceed the environmental quality standards specified in the laws and regulations regarding water protection, if it does not affect the compliance of the quality of the relevant surface water body with the referred to environmental quality standards outside a mixing zone.

*[27 July 2010]*

20.<sup>2</sup> A mixing zone shall be designated in the direct vicinity of a point discharge point, taking into account:

20.<sup>2</sup>1. the programme for the decrease of pollution referred to in Sub-paragraph 20.7 of this Regulation and the possibilities for the application of the best available technical method;

20.<sup>2</sup>2. the physical and chemical properties of the discharged priority or dangerous substances and hydrological conditions of the particular water body;

20.<sup>2</sup>3. the concentration of polluting substances at the discharge point and the permit conditions for emission of polluting substances in a certain water body so that the mixing zone is proportionate in comparison with the total impact of such substances on the quality of the water body.

*[27 July 2010]*

20.<sup>3</sup> If the regional environmental board establishes that the mixing zone specified in the permit fails to ensure the fulfilment of the conditions referred to in Sub-paragraph 20.6 of this Regulation in the relevant water body outside the mixing zone, in reviewing permit conditions in compliance with the requirements of the laws and regulations of environmental protection, the regional environmental board shall assess the size of the mixing zone below the point pollution source and determine the measures for reduction thereof.

*[27 July 2010]*

21. In order to reduce the pollution of surface waters caused by dangerous substances, the Ministry of Environmental Protection and Regional Development shall develop an action programme in accordance with Section 17 of the Law On Pollution.  
*[19 February 2013]*

#### **IV. Discharge of Priority Substances and Dangerous Substances into the Groundwater** *[27 July 2010]*

22. The introduction of polluting substances (also priority and dangerous substances) into groundwater, except for the cases, if they leak through the soil or sedimentary rocks (hereinafter – direct discharge into groundwater), shall be prohibited, except the cases referred to in Paragraph 23 of this Regulation.  
*[27 July 2010]*

23. The regional environmental board may allow direct discharge into groundwater, if the quality of the groundwater does not deteriorate due to the discharge, the operator has performed a preliminary research, the operator has received a permit for the discharge of pollution and in accordance with laws and regulations regulating the use of subterranean depths he or she has a licence for the use of subterranean depths for the following activities:

23.1. to introduce thermal water used for the acquisition of energy back into the same horizon from which it was obtained;

23.2. to introduce the water, which contains the substances which have formed as a result of research and the acquisition of hydrocarbons, in such geological structures from which the hydrocarbons or other substances have been evacuated, or in such geological structures, which due to natural conditions are not and will not be usable for other purposes, if the water entered contains only such substances which have been formed during the activities referred to previously;

23.3. to introduce the groundwater evacuated from working of quarries or civil engineering construction or for maintaining needs back into the groundwater horizons;

23.4. to introduce natural gas or liquid petroleum products gas for storage in geological structures, which due to natural conditions are not and will not be usable for other purposes;

23.5. to introduce natural gas or liquid petroleum products gas for storage in other kinds of geological structures, if it is specially necessary to ensure the gas stores and the introduction is carried out in such a way which eliminates the decrease of the quality of receiving groundwater now or in the future;

23.6. to introduce small amounts of substances into groundwater complexes for the purposes of scientific research, in order to characterise or protect groundwater or remediation performed therein, if more of the substances than would be necessary for the relevant purpose are not entered.

*[16 January 2007; 27 July 2010]*

24. The discharge restrictions laid down in this Chapter and the duty to take measures for restriction and prevention of pollution laid down in the laws and regulations regarding the procedures for the survey and quality criteria of groundwater resources shall not apply to the discharge of priority substances and dangerous substances into groundwater in the following cases:

24.1. if the regional environmental board has detected that priority substances and dangerous substances are in such a small amount and concentration that the discharge thereof into the groundwater, including leaking through the soil or sedimentary rocks (hereinafter –

indirect discharge), does not prevent reaching the environmental quality objectives or quality standards determined and does not cause risk to deterioration of the condition of receiving groundwater either presently, or in future;

24.2. if the regional environmental board recognises that discharge of domestic wastewater from separate buildings which are not connected to a centralised equipment and pipeline system ensuring collection, drainage and treatment of wastewater (hereinafter – centralised collecting system) is insignificant and the referred-to buildings are located outside the protection zones around the drinking water abstraction sites;

24.3. if discharge of polluting substances into the groundwater is the consequences of accidents or exceptional circumstances caused by natural process and it has not been possible to predict them and to prevent or reduce their impact;

24.4. if polluting substances reach the groundwater due to raising of the water level of a groundwater body or artificial supplementation of stocks of groundwater which is carried out according to the conditions referred to in the permit issued by the regional environmental board;

24.5. if the regional environmental board has detected that it is technically possible to prevent or restrict the discharge of polluting substances into the groundwater, to liquidate the polluting substances discharged in polluted soil or subterranean depths or to otherwise control the getting of such substances in polluted soil or subterranean depths only by implementing measures which would increase threats to the human health or the environmental quality at large or would be incommensurately expensive;

24.6. if polluting substances are discharged into the groundwater by carrying out activities in surface waters, for example, by attempting to reduce the impact of flood or draught, or by managing waters and waterways (including cross-border). Such activities (including extraction, dredging work, movement and placing of sediments and drift material in the surface waters) shall be carried out in accordance with the laws and regulations regarding the procedures for cleaning and deepening of surface water bodies and port aquatic areas. The polluting substances which have been discharged into the groundwater as a result of the referred-to activities may not hinder the achieving of the environmental quality objectives, which have been laid down for the relevant groundwater bodies in accordance with the Water Management Law;

24.7. if polluting substances get into the groundwater in accordance with Paragraph 23 of this Regulation.

*[19 February 2013]*

24.<sup>1</sup> The conditions referred to in Paragraphs 23 and 24 of this Regulation may be applied only in such case if the regional environmental board has recognised that efficient monitoring of supervision or another monitoring in accordance with the laws and regulations regarding the requirements for the monitoring of surface waters, ground waters and protected territories and the drawing up of monitoring programmes is ensured in the relevant groundwater body. The regional environmental board shall list the cases when the conditions referred to in Paragraph 24 of this Regulation were applied, and inform the Ministry of Environmental Protection and Regional Development thereof once a year.

*[19 February 2013]*

25. If an operator plans to dispose or store priority substances or dangerous substances prior to disposal and the referred to activities may cause indirect discharge into groundwater, as well as to perform other polluting activities which may cause indirect discharge into groundwater, a permit shall be received prior to performance of the referred to activities. The permit may be issued, if:

25.1. the indirect discharge does not affect active or decelerated water exchange zones, the waters from which are used for water supply;

25.2. the operator proves documentarily in the submission that all the necessary safety measures have been performed in order to prevent indirect discharge and pollution of groundwater, also an investigation of the groundwater pollution and hydrological conditions.  
*[27 July 2010]*

26. The regional environmental board shall not issue a permit for the activities referred to in Paragraphs 23 and 25 of this Regulation, if in plans for the management of river basin districts drawn up in accordance with the Water Management Law a significant and sustained increase in concentration of polluting substances, groups of polluting substances or pollution indicators has been detected in the groundwater body (upward trend of pollution), which must be reduced, however, the referred-to activities would cause additional discharge of the relevant polluting substances or groups of polluting substances and inadmissible spread of pollution, as well as would endanger the abstraction of mineral water, drinking water or water necessary for agricultural needs or cause harm to surface water or terrestrial ecosystems.  
*[19 February 2013]*

27. Prior to issue of the permit for discharge into groundwater, if the discharge may cause cross-border pollution, the regional environmental board shall notify the Environment State Bureau. The Environment State Bureau shall notify the competent authority of the relevant state.  
*[19 February 2013]*

27.<sup>1</sup> Upon drawing up the conditions of a permit for the activities referred to in Paragraphs 23 and 25 of this Regulation the regional environmental board shall take into account:

27.<sup>1</sup> 1. the chemical quality of the particular groundwater object and the environmental quality standards applicable thereto and threshold values of polluting substances, determined in accordance with the laws and regulations regarding the procedures for surveying of groundwater resources and quality criteria;

27.<sup>1</sup> 2. the significant and sustained upward pollution trends identified in the particular groundwater object and the conditions for prevention and reduction thereof which have been laid down in the laws and regulations regarding the requirements for the monitoring of surface waters, ground waters and protected territories and the drawing up of monitoring programmes.  
*[19 February 2013]*

28. The following information shall be included in the conditions of the permit for the activities referred to in Paragraphs 23 and 25 of this Regulation:

28.1. the requirement to perform all the necessary precautionary measures in order to prevent the pollution of the groundwater of other horizons, other terrestrial ecosystems or water ecosystems with the substances discharged, taking into account the properties and concentration of these substances, characterisation of the receiving environment, as well as the proximity of water abstraction sites and drinking, thermal and mineral water abstraction sites;

28.2. the discharge limits for the discharged polluting substances;

28.3. the requirement to ensure groundwater quality monitoring in the horizon, where the polluting substances are discharged or are likely to be discharged and the horizons above in all the territory of the possible spread of pollution;

28.4. a regular inspection of the devices used for discharge of the polluting substances, also boring wells, leakproofness and safety;

28.5. the measures for changing the upward trend of pollution, if necessary.

*[19 February 2013]*



## V. Discharge of Urban Wastewater

29. Highly sensitive territories, to which increased requirements for wastewater treatment apply, shall be determined, if the water body complies with one of the following criteria:

29.1. natural fresh water lakes and other fresh water bodies, as well as estuaries and coastal waters have become eutrophical – the enrichment of water by plant nutrients, particularly compounds of phosphorus and nitrogen, causing an accelerated growth of algae or higher forms of plant life, thus causing undesirable disturbance to the balance of organisms present in the water and to the quality of the water – or may become eutrophical in the nearest future unless protection measures are taken;

29.2. the concentration of nitrogen in surface water bodies of the fresh water intended for abstraction of drinking water exceeds or may exceed the quality standards specified in the laws and regulations regulating the surface water and groundwater quality, unless protection measures are taken;

29.3. more intensive wastewater treatment is required in order to achieve the environmental quality standards specified in laws and regulations.

*[19 February 2013]*

30. All the territory of Latvia is specified as a highly sensitive territory, to which high requirements for urban wastewater treatments apply, and the border of which match with the land borders of the Republic of Latvia.

31. The amount of pollution expressed in the population equivalents shall be calculated on the basis of the maximum amount of average weekly pollution, which reach the wastewater treatment plants (hereinafter – treatment plants) within a year under normal weather conditions. The load caused due to rain and other atypical conditions shall not be taken into account in these calculations. The amount of pollution expressed in population equivalents for planning purposes may be calculated on the basis of the number of inhabitants and enterprises for which a connection is planned, and depending on the water consumption characteristic to them and values of wastewater biochemical oxygen demand (BOD<sub>5</sub>). One unit of the population equivalent is the amount of pollution of organic substances which conforms to 60 g O<sub>2</sub> of biochemical oxygen demand per day.

31.<sup>1</sup> The requirements for a centralised collection and discharge of urban wastewater shall be determined for all populated areas or certain parts of the territory within the borders thereof where the number of inhabitants, population density and economic activity are sufficiently concentrated so that it would be economically justified to establish a centralised collecting network for the collection and discharge of wastewater from systems to wastewater treatment facilities or to the final point of discharge thereof into the environment (hereinafter – agglomeration).

*[27 July 2010; 19 February 2013]*

32. Centralised collecting systems shall be set up in agglomerations where the population equivalent is larger than or equal to 2000. A local government shall be responsible regarding setting up of the centralised collecting system.

*[27 July 2010]*

33. In agglomerations where the population equivalent is less than 2000, the relevant local government shall decide on the setting up of the centralised collecting system. The centralised collecting systems set up in such agglomerations shall comply with all the requirements of this Regulation.

*[27 July 2010]*

34. If the setting up of a centralised collecting system is economically unprofitable or will not improve the environmental quality, a decentralised collecting system or other type of installation (hereinafter – decentralised collecting system), which ensures a similar level of environment protection, shall be used for collecting of wastewater. Such a decision shall be substantiated with the results of technical economic research and environment research. If a decentralised collecting system is set up, the relevant local government shall ensure the regular collection of the wastewater collected therein and the utilised waste connected with it, and treatment in accordance with the requirements of this Regulation and other laws and regulations. The relevant local government shall notify the regional environmental board regarding the decision to create a decentralised collecting system.

35. If a centralised collecting system is set up in an agglomeration, the local government shall ensure regular collection and treatment of the wastewater collected in decentralised collecting systems and utilised waste connected with it, as well as perform accounting in accordance with this Regulation and the laws and regulations in the field of environmental protection.

*[27 July 2010; 19 February 2013]*

36. In designing, constructing and maintaining of centralised collecting system, the best technical solutions shall be used which do not cause excessive costs, taking into account:

36.1. the amount and content of urban wastewater to be collected;

36.2. the necessity to eliminate leakage;

36.3. the necessity to restrict surface water pollution, which is caused due to overload of the collecting system or in case of accidents during rainfall, in order that the environmental quality objectives specified for surface waters are observed. The permissible level of dilution and the frequency of overflow shall be determined in accordance with the construction standards of Latvia.

*[19 February 2013]*

37. Treatment technologies for wastewater collected in collecting systems are divided in the following way:

37.1. appropriate treatment – the use of such technologies and disposal systems which ensures the conformity of the receiving water body with the environmental quality requirements laid down for them and other conditions laid down in the laws and regulations regarding environmental protection;

37.2. primary treatment – physical or chemical wastewater treatment or another process in which the biological oxygen demand of the incoming wastewater load is reduced by at least 20% before discharge and the total suspended solids of the incoming wastewater load are reduced by at least 50%;

37.3. secondary treatment – the use of such technologies where generally biological treatment with secondary settlement or other processes are used which can ensure the conformity of the quality of wastewater discharged from treatment plants with the requirements specified in Table 1 of Annex 5 to this Regulation.

*[19 February 2013]*

38. In agglomerations, where the population equivalent is less than 2000, an appropriate treatment shall be performed for all wastewater collected in centralised collecting systems, as well as reduction of pollution in relation to the incoming load shall be ensured in accordance with Table 1 of Annex 5 to this Regulation.

*[27 July 2010; 19 February 2013]*

39. In agglomerations, where the population equivalent is from 2000 to 10 000, at least secondary treatment shall be performed for all wastewater collected in centralised collecting systems.

*[27 July 2010; 19 February 2013]*

40. In agglomerations where the population equivalent is more than 10 000, all wastewater collected in centralised collecting systems shall be treated more intensively than necessary, performing a secondary treatment and shall ensure the conformity of the wastewater with the requirements specified in Tables 1 and 2 of Annex 5 to this Regulation.

*[27 July 2010]*

41. Treatment plants shall be designed, built, rebuilt and exploited:

41.1. in such a way that the place chosen for construction of a treatment plant would comply with all kinds of territorial planning;

41.2. in such a way that the treatment plants comply with the requirements specified in the construction standards of Latvia;

41.3. in such a way that the treatment plants would operate qualitatively under the climatic conditions of Latvia;

41.4. in such a way that it would be possible to take characteristic samples of influent, as well as treated wastewater before discharge thereof into the receiving waters, to keep a register and take samples in rainwater overflow chambers and emergency overflows;

41.5. taking into account fluctuations of the incoming load due to the seasonal work nature of treatment plants or load changes in different seasons;

41.6. evaluating all actually possible discharge sites (including the possibility of discharging the treated wastewater to another water body in the vicinity which is less sensitive to pollution) and the impact of the discharge at each site so that the selected discharge site would ensure as less harmful environmental impact as possible;

41.7. in such a way that the discharge site of urban wastewater treatment plants would be located as far from each other as possible, thus reducing the total impact on the relevant water body;

41.8. taking into account:

41.8.1. the objectives for using the water body;

41.8.2. the elements of the water body limiting eutrophication (nitrogen or phosphorus) and the sensitivity of the water body to pollution;

41.8.3. the efficiency of wastewater discharge getting mixed with waters of the water body;

41.8.4. the condition of the existing sewage system (including treatment plants), technical possibilities of introducing additional separation of the total nitrogen or total phosphorus and costs of such introduction and operation;

41.8.5. the possibilities of processing and further managing of wastewater sludge;

41.8.6. the possibility of discharging the treated wastewater to another water body in the vicinity, with less sensitivity to pollution;

41.8.7. the possibility to discharge the non-treated wastewater to another sewage system in the vicinity;

41.8.8. the solvency of inhabitants for introduction of additional requirements for more intense treatment of wastewater and ensuring operation of the relevant plants.

*[19 February 2013]*

42. Discharge of non-treated industrial wastewater, urban wastewater and sludge into surface waters or into the environment, as well as into the rainwater sewage system is prohibited.

*[19 February 2013]*

43. If industrial wastewater is discharged into a centralised collecting system or to external treatment plants, an operator:

43.1. shall enter into an agreement with the owner or possessor of the centralised collecting system or treatment plants. A contract shall specify:

43.1.1. the contracting parties;

43.1.2. the substances which are intended to be discharged including all particularly priority substances and dangerous substances which were determined in the wastewater or which the operator expects to discharge;

43.1.3. the maximum amount of water and polluting substances which the plant may discharge;

43.1.4. the time period of the agreement;

43.1.5. the consequences in case of infringement of the terms of the contract for both parties;

43.2. shall perform pre-treatment of industrial wastewater ensuring that:

43.2.1. no harm occurs to the health of the personnel working with the centralised collecting system and treatment plants;

43.2.2. a centralised collecting system, treatment plants and technological equipment are not damaged;

43.2.3. the operation of treatment plants is not disturbed;

43.2.4. the discharge from treatment plants would not have an adverse effect on the environment and would not cause non-conformity of the receiving waters with the requirements of this Regulation and other laws and regulations;

43.2.5. the wastewater sludge would be possible to manage in accordance with the requirements of laws and regulations not causing harm to the environment;

43.2.6. the wastewater would conform with the conditions of the agreement referred to in Sub-paragraph 43.1 of this Regulation.

*[16 January 2007; 27 July 2010; 19 February 2013]*

44. The operator of a plant shall attach a copy of the agreement referred to in Sub-paragraph 43.1 of this Regulation to an application for permit.

45. If industrial wastewater, which contains biologically degradable substances and does not contain priority substances or dangerous substances, of the production sectors referred to in Paragraph 11 of Annex 5 to this Regulation is discharged directly into the surface waters, the following conditions shall be observed:

45.1. appropriate treatment shall be performed for wastewater from the undertakings the pollution caused by which is less than 4000 population equivalents ensuring the conformity of receiving water body with the environmental quality requirements laid down and other conditions laid down in the laws and regulations regarding environmental protection;

45.2. an operator shall apply the threshold values specified in Tables 1 and 2 of Annex 5 to this Regulation or use the best technical methods, choosing such type for discharge control, for which the most stringent requirements are specified, for the wastewater from the undertakings the pollution caused by which is equal to or higher than 4 000 population equivalents.

*[16 January 2007; 27 July 2010; 19 February 2013]*

46. An operator shall ensure useful utilisation of wastewater and sewage sludge (including the use of wastewater and sludge from wastewater in the fertilisation of the soil and improvement of the territories in accordance with the procedures specified in laws and regulations). A permit shall be received for the disposal of sewage sludge. Installations for the discharge of

wastewater and the disposal of sewage sludge shall be set up in such a way that they decrease the adverse effect of wastewater and sewage sludge on the environment. The operator has the right to agree with other operators regarding the collection and disposal of sewage sludge at the places of deposition of other treatment plants. The operator shall notify the regional environmental board regarding such agreement within two weeks after entering into the agreement.

47. An action programme for the reduction of pollution caused by the discharge of urban wastewater shall be developed by the Ministry of Environmental Protection and Regional Development in accordance with Section 17 of the Law On Pollution. The periods of time for setting up of collecting systems and treatment plants, as well as the plan for attraction of financing and resources shall be determined in the action programme.

*[19 February 2013]*

## **VI. Discharge Threshold Values and Discharge Limits**

48. Discharge threshold values for urban wastewater are laid down in Annex 5 to this Regulation.

*[19 February 2013]*

49. *[19 February 2013]*

50. *[19 February 2013]*

51. *[19 February 2013]*

52. The regional environmental boards shall determine discharge limits taking into account:

52.1. the discharge threshold values laid down in Annex 5 to this Regulation and other laws and regulations, as well as the requirements connected with them;

52.2. calculation results acquired on the basis of the quality standards or principles laid down in the laws and regulations regarding surface water and groundwater quality;

52.3. the guidelines for the best available techniques;

52.4. the information regarding the discharge of pollution into the water or environment, the amount of pollution, including the discharged quantities of the substances referred to in Sub-paragraph 43.1.2 of this Regulation, and the planned control measures included in the submission of an operator, as well as regarding environmental impact on the receiving bodies of water;

52.5. the environmental quality objectives or quality standards laid down for a particular water body;

52.6. the water quality for the relevant water body and the sensitivity thereof to pollution, the information regarding other existing or expected sources of pollution, as well as the background concentration of the relevant substances;

52.7. the technical state of the treatment plants and possible improvement thereof without capital reconstruction;

52.8. the level of wastewater treatment in analogue wastewater treatment plants.

*[19 February 2013]*

52.<sup>1</sup> If after reconstruction of wastewater treatment plants or construction of new plants the discharge of wastewater is intended in a water body which in the laws and regulations regarding risk water bodies has been determined as a risk water body due to a point pollution source, the regional environmental board shall determine the discharge limits for the relevant substances for any agglomeration, assessing the significance of the impact of the substances

laid down in Annex 5 to this Regulation on such risk water body, not less than 25% more strict than in comparison to the requirements laid down in the referred-to Annex.  
*[19 February 2013]*

52.<sup>2</sup> The discharge threshold values expressed as the maximum permissible concentration may not exceed such threshold values which are expressed as the maximum permissible mass of the discharged substance in a certain period of time.  
*[19 February 2013]*

52.<sup>3</sup> The discharge threshold values shall be applied, taking into account the prohibitions and restrictions laid down in laws and regulations for production, importation, usage of and trade in dangerous chemical substances.  
*[19 February 2013]*

53. If discharge threshold values for particular chemical substances or for discharge from specified production processes are not laid down in laws and regulations, the regional environmental board shall substitute them with other conditions ensuring equivalent protection of receiving waters and determine the discharge limits taking into account:

53.1. the guidelines for the best available technologies;

53.2. discharge threshold values or environmental quality standards specified for substances with similar effect on the environment;

53.3. the quality of receiving waters – it shall in accordance with laws and regulations regarding the quality of surface water comply at least with water quality standards for Cypriniformes;

53.4. the specified environmental quality objectives and the quality standards laid down in the laws and regulation regarding the quality of surface waters and ground waters for particular chemical substances.

*[16 January 2007; 19 February 2013]*

54. The Ministry of Environmental Protection and Regional Development shall evaluate the necessity to change the discharge threshold values referred to in Annex 5 to this Regulation, if:

54.1. proposals from natural persons or legal persons have been received which are substantiated with the information regarding the effect caused by discharge;

54.2. changes are necessary taking into account the latest information regarding the effect of the polluting substances or advanced pollution treatment technologies;

54.3. it is necessary in order to achieve the environment quality objectives specified for receiving waters;

54.4. it is necessary taking into account international obligations of Latvia.

*[16 January 2007; 19 February 2013]*

55. The Ministry of Environmental Protection and Regional Development shall inform the natural and legal persons regarding the results of the evaluation not later than 12 months after the receipt of the proposal regarding necessity of the changes.

*[16 January 2007; 19 February 2013]*

## **VII. Monitoring and Control**

56. A regional environmental board shall include in the permit the requirements for monitoring performed by the operator and shall determine the frequency of monitoring, taking into account the requirements specified in this Regulation, laws and regulations regarding the monitoring of surface waters, groundwater and protected territories and in the laws and

regulations regarding the monitoring of the environment and register of polluting substances, as well as the nature and type of discharge and the quality requirements for receiving waters.  
*[16 January 2007]*

57. The operator, which discharges or plans to discharge priority substances or dangerous substances, shall develop and add the monitoring programme of the referred to substances to an application for the receipt of the permit. The procedures for the taking of samples, the procedures for specification of the amount of priority substances and dangerous substances used, as well as the procedures for performing of measurements for wastewater flow and other necessary measurements shall be described in the programme, taking into account the following conditions:

57.1. the samples are taken and wastewater flow is measured at the point where discharge threshold values are applied. If the referred to activities are performed at the point which is located before the point of application of discharge threshold values, the operator shall ensure:

57.1.1. that measurements at this point cover all the wastewater formed in the enterprise which may be polluted with the substances to be controlled;

57.1.2. the performance of regular analyses in order to prove that the results obtained at this point match with the amounts of substances discharged at the point of application of threshold values or are always greater than them;

57.2. samples collected within 24 hours in proportion to the wastewater flow shall be taken;

57.3. the amount of substance discharged within a month shall be calculated on the basis of the amount of substance discharged every day;

57.4. if it is not possible to specify the amount of separate dangerous substances used in the enterprise, a monitoring of substances shall be performed, which characterises the enterprise production capacity specified in the permit;

57.5. in monitoring of priority substances and dangerous substances the requirements in relation to the testing methods of the referred-to substances and the procedures for ensuring and control of the quality of results shall be conformed to, which have been laid down for chemical monitoring in the laws and regulations regarding the requirements for the monitoring of surface waters, ground waters and protected territories and the drawing up of monitoring programmes;

57.6. the measurements of wastewater flow shall be performed with a precision of  $\pm 20\%$ .

*[16 January 200; 27 July 2010; 19 February 2013]*

58. *[19 February 2013]*

59. In performing the monitoring of urban wastewater discharged from treatment plants, the operator shall observe the procedures and reference methods of analysis specified in Annex 5 to this Regulation. Other methods of analysis may be used, if it is possible to achieve equal results.

60. If the discharge of priority substances and dangerous substances may affect the territorial waster of other states, the regional environmental board shall notify the State Environment Bureau. The State Environment Bureau shall notify the relevant states in order to agree on co-operation in the co-ordination of monitoring procedures.

*[27 July 2010; 19 February 2013]*

61. An operator shall submit to the Centre the monitoring data performed by the operator in compliance the laws and regulations regarding forms of environmental protection State statistics reports. The Centre shall compile and store the data received.

*[16 January 2007; 27 July 2010]*

62. If a non-conformity of discharge with the conditions of the permit is detected during the monitoring, an operator shall notify the regional environmental board and the Health Inspectorate thereof, shall ascertain the reasons for the non-conformity and perform the necessary measures in order to ensure conformity. The regional environmental board shall perform the necessary measures in order to control the conformity of the discharge with the relevant requirements and prevent any reduction of the quality of the aquatic environment.

*[15 April 2008]*

63. The State environment inspectors shall perform the State control in order to check whether the wastewater containing priority substances or dangerous substances comply with the discharge limits specified in the permit and whether the wastewater discharged from treatment plants comply with the requirements specified in the permit. The necessary analyses shall be carried out in the laboratory accredited in the Latvian National Accreditation Bureau of the State limited liability company “Standardisation, Accreditation and Metrology Centre” in compliance with the standard LVS EN ISO/IEC 17025:2005 “General Requirements for the Competence of Testing and Calibration Laboratories” and regarding which the Ministry of Economics has published a notification in the newspaper *Latvijas Vēstnesis* [the official Gazette of the Government of Latvia], or by an accredited laboratory of another Member State of the European Union, Turkey and European Economic Area state (hereinafter – laboratory).

*[27 July 2010]*

64. The State environment inspectors shall check the observance of conditions specified for an operator in the permit issued not less than once a year.

### **VIII. Provision of Information**

65. The operator shall ensure that sample-taking and the necessary analyses are performed by a laboratory accredited in the relevant field. In accordance with the requirements laid down in the permit the operator shall provide the following monitoring data and information to the regional environmental board:

65.1. the conformity of the discharge of priority substances and dangerous substances, as well as other polluting substances (if discharge limits have been laid down for them in the permit) with the discharge limits laid down in the permit;

65.2. the conformity of the wastewater discharged from treatment plants with the conditions laid down in the permit;

65.3. the quality monitoring data of the receiving water body upstream and downstream of the point of discharge according to the requirements laid down in the permit;

65.4. the quantity, content, use, disposal and monitoring data of the sludge from the wastewater produced;

65.5. data of other types of monitoring according to the conditions laid down in the permit.

*[19 February 2013]*

66. In order to inform the public and State institutions regarding the protection of the aquatic environment against pollution caused by the discharge of priority substances, dangerous substances and urban wastewater, the Centre shall prepare information annually regarding the



discharge of priority substances and dangerous substances, regarding the discharge of urban wastewater and the use of the sludge from wastewater and depositing in the territory of Latvia, as well as a summary regarding the results of the monitoring performed in accordance with this Regulation and ensure the availability of the referred-to information to the public in accordance with the requirements laid down in the Environmental Protection Law.

*[27 July 2010; 19 February 2013]*

67. The Ministry of the Environment in co-operation with the Centre shall provide the following information to the European Commission:

67.1. not less than once in four years – regarding the amendments to Annex 1 and 2 to this Regulation;

67.2. not less than once in three years – regarding the measures which ensure the protection of groundwater and surface waters against pollution caused by priority substances and dangerous substances;

67.3. summaries of the programmes for reduction of the pollution referred to in Sub-paragraph 20.6 of this Regulation;

67.4. regarding the action programmes referred to in Paragraph 21 of this Regulation;

67.5. regarding measures intended in Chapter IV of this Regulation which ensure the protection of groundwater against pollution by priority substances and dangerous substances;

67.6. not less than once in two years – a report regarding the discharge of urban wastewater and the use and disposal of wastewater sludge in the territory of Latvia;

67.7. regarding the action programme referred to in Paragraph 47 of this Regulation for reduction of the pollution caused by wastewater. The updated information regarding the referred to programme hereinafter shall be provided to the European Commission every other year up to 30 June of the relevant year;

67.8. within six months after the receipt of the relevant request – in accordance with this Regulation the information obtained during the monitoring performed;

67.9. regarding the methods used for monitoring of urban wastewater.

*[27 July 2010]*

68. Information provided to the European Commission shall be freely accessible to the public.

## **IX. Closing Provisions**

69. Up to the time when the requirement for the relevant installation to receive Category A or B permit comes into effect, the installation operator shall implement the requirements specified in the permit for use of water. If in the permit for the use of water all the requirements in effect specified in this Regulation are not mentioned, the operator not later than within a year after coming into effect of this Regulation shall submit to the regional environmental board a supplemented application for the receipt of the permit for the use of water.

70. The Ministry of Environmental Protection and Regional Development shall develop the action programme referred to in Paragraphs 21 and 47 of this Regulation and submit it to the Cabinet for approval within two years after coming into force of this Regulation.

*[19 February 2013]*

71. The setting up of the collecting systems in agglomerations, where the population equivalent is above 100 000, shall be completed up to 31 December 2008, in agglomerations, where the population equivalent is from 10 000 – 100 000 – up to 31 December 2011, in all other agglomerations, where the population equivalent is above 2 000 – up to 31 December 2015.

*[27 July 2010]*

72. The requirements laid down in Paragraphs 38, 39 and 40 of this Regulation for urban wastewater treatment in agglomerations where the population equivalent is above 100 000, shall come into force from 31 December 2008, in agglomerations where the population equivalent is from 10 000 – 100 000, – from 31 December 2011, but in all other agglomerations where the population equivalent is above 2000 – from 31 December 2015. If the funding project is implemented in the agglomeration for construction of treatment plants or for reconstruction, the relevant requirements shall come into force after the full completion of the funding project.

*[27 July 2010]*

73. Paragraph 67 of this Regulation comes into force on 1 January 2004.

### **Informative Reference to European Union Directives**

This Regulation contains legal norms arising from:

1) Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (Codified version)

2) Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances;

3) [19 February 2013];

4) [19 February 2013];

5) [19 February 2013];

6) [19 February 2013];

7) [19 February 2013];

8) [19 February 2013];

9) [19 February 2013];

10) Council Directive of 21 May 1991 concerning urban waste water treatment (91/271/EEC);

11) Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council;

12) Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration.

*[16 January 2007; 27 July 2010; 19 February 2013]*

Prime Minister

A. Bērziņš

Minister for Environmental Protection  
and Regional Development

V. Makarovs

**Priority Substances**

No.	CAS number <sup>(1)</sup>	Name of the substance <sup>(2)</sup>	Notes
1.	15972-60-8	Alachlor	
2.	120-12-7	Anthracene	X
3.	1912-24-9	Atrazine	
4.	71-43-2	Benzene	
5.	not applicable	Brominated diphenylether <sup>(3)</sup>	X
5.1.	32534-81-9	Pentabromodiphenylether (congener numbers 28, 47, 99, 100, 153 and 154)	
6.	7440-43-9	Cadmium and its compounds	X
7.	85535-84-8	Chloroalkanes, C10-13	X
8.	470-90-6	Chlorfenvinphos	
9.	2921-88-2	Chlorpyrifos (Chlorpyrifos-ethyl)	
10.	107-06-2	1,2-dichloroethane	
11.	75-09-2	Dichloromethane	
12.	117-81-7	Di(2-ethylhexyl)phthalate (DEHP)	
13.	330-54-1	Diuron	
14.	115-29-7	Endosulfan	X
15.	206-44-0	Fluoranthene <sup>(4)</sup>	
16.	118-74-1	Hexachlorobenzene	X
17.	87-68-3	Hexachlorobutadiene	X
18.	608-73-1	Hexachlorocyclohexane	X
19.	34123-59-6	Isoproturon	
20.	7439-92-1	Lead and its compounds	
21.	7439-97-6	Mercury and its compounds	X
22.	91-20-3	Naphthalene	
23.	7440-02-0	Nickel and its compounds	
24.	25154-52-3	Nonylphenol	X
24.1.	104-40-5	(4-nonylphenol)	X
25.	1806-26-4	Octylphenol	
25.1.	140-66-9	(4-(1,1',3,3'-tetramethylbutyl)-phenol)	
26.	608-93-5	Pentachlorobenzene	X
27.	87-86-5	Pentachlorophenol	
28.	not applicable	Polyaromatic hydrocarbons	X
28.1.	50-32-8	(Benzo(a)pyrene)	X
28.2.	205-99-2	(Benzo(b)fluoranthene)	X
28.3.	191-24-2	(Benzo(g,h,i)perylene)	X

28.4.	207-08-9	(Benzo(k)fluoranthene)	X
28.5.	193-39-5	(Indeno(1,2,3-cd)pyrene)	X
29.	122-34-9	Simazine	
30.	not applicable	Tributyltin compounds	X
30.1.	36643-28-4	(Tributyltin-cation)	X
31.	12002-48-1	Trichlorobenzenes	
32.	67-66-3	Trichloromethane (chloroform)	
33.	1582-09-8	Trifluralin	

Notes.

1. <sup>(1)</sup> The number of the substance in the register of chemical substances *Chemicals Abstracts Service*.
2. <sup>(2)</sup> Where groups of substances have been selected, typical individual representatives are listed as indicative parameters. For these groups of substances, the indicative parameter must be defined through the analytical method.
3. <sup>(3)</sup> Only Pentabromobiphenylether (CAS-number 32534-81-9) shall be considered as especially dangerous for aquatic environment.
4. <sup>(4)</sup> Fluoranthene is on the list as an indicator of other, more dangerous polyaromatic hydrocarbons.
5. X – a substance especially dangerous for aquatic environment, the discharge and leakage of which must be eliminated by 22 December 2020.

## Annex 2

Cabinet Regulation No. 34

22 January 2002

[27 July 2010]

### Dangerous Substances for Aquatic Environment

No.	CAS number <sup>(1)</sup>	Name of the substance
1.	56-23-5	Carbon-tetrachloride
2.	309-00-2	Cyclodiene pesticides:
2.1.	60-57-1	Aldrin
2.2.	72-20-8	Dieldrin
2.3.	465-73-6	Endrin
2.4.		Isodrin
3.	-	DDT total <sup>(2)</sup>
4.	50-29-3	para-para-DDT
5.	127-18-4	Tetrachloro-ethylene
6.	79-01-6	Trichloro-ethylene
7.	7440-38-2	Arsenic and its compounds
8.	7440-66-6	Zinc and its compounds
9.	7440-47-3	Chromium and its compounds
10.	7440-50-8	Copper and its compounds
11.	94-75-7	2,4-dichlorophenoxyacetic acid
12.	107-13-1	Acrylonitrile
13.	109-89-7	Diethylamine
14.	75-09-2	Dimethoate or rogor
15.	-	Phenols (index of phenols)
16.	50-00-0	Formaldehyde
17.	95-51-2	2-chloroaniline
	108-42-9	3-chloroaniline
	106-47-8	4-chloroaniline
18.	108-90-7	Chlorobenzene
19.	-	Polychlorinated biphenyls (PCB)
20.	88-06-2	2,4,6-trichlorophenol
21.	-	Monoaromatic hydrocarbons (toluene, ethylbenzene, xylenes)
22.	-	Petroleum hydrocarbons (hydrocarbon C <sub>10</sub> -C <sub>40</sub> indekss)

#### Notes.

1. <sup>(1)</sup>The number of the substance in the register of chemical substances *Chemicals Abstracts Service*.

2. <sup>(2)</sup> DDT total comprises the sum of the isomers 1,1,1-trichloro-2,2bis(p-chlorophenyl)ethane (CAS number 50-29-3); 1,1,1-trichloro-2(o-chlorophenyl)-2-(p-chlorophenyl)ethane (CAS number 789-02-6); 1,1-dichloro-2,2bis(p-chlorophenyl)ethylene (CAS number 72-55-9); and 1,1-dichloro-2,2bis(p-chlorophenyl)ethane (CAS number 72-54-8).

**Discharge Threshold Values for Priority Substances and Dangerous Substances in  
Surface Waters**  
[19 February]

**Reference Methods of Analysis to be Used for Monitoring**  
[19 February 2013]

## Requirements for Urban Wastewater Treatment

### I. Percentage of Reduction of Pollution

Table 1

#### Requirements for Waters Discharged from Urban Wastewater Treatment Plants in Respect of Biological Oxygen Demand, Chemical Oxygen Demand and Suspended Solids

No.	Parameter	Population equivalent	Concentration or treatment technology	Percentage of reduction of pollution	Reference method of analysis
1.	Biochemical oxygen demand (BOD <sub>5</sub> ) at 20 °C (without nitrification)	< 200	appropriate treatment	–	Homogenised, unfiltered, undecanted sample. Dissolved oxygen shall be determined before and after a five-day incubation at 20 °C ±1 °C temperature, in complete darkness. Addition of a nitrification inhibitor
		200–2 000	appropriate treatment	50–70	
		2 000–10 000	25 mg/l	70–90	
		> 10 000	25 mg/l	70–90	
2.	Chemical oxygen demand (COD)	< 200	appropriate treatment	–	Homogenised, unfiltered, undecanted sample. Use of potassium dichromate
		200–2 000	appropriate treatment	50–75	
		2000–10000	125 mg/l	75	
		> 10000	125 mg/l	75	
3.	Suspended solids – total amount	up to 10 000	less than 35 mg/l	90	Filtering of a representative sample through a 0.45 µm filter membrane. Drying at 105 °C temperature and weighing
		10 000 and more	less than 35 mg/l	90	

1. The percentage of reduction of pollution (hereinafter – reduction) shall be determined comparing the amount of polluting substance in the treated wastewater with the amount thereof in the wastewater flowing into the treatment plant.

2. Instead of biological oxygen demand (BOD<sub>5</sub>) another parameter may be used – total organic carbon or chemical oxygen demand, if a relationship can be established between the biological oxygen demand and the referred to parameter values.

3. In analysing discharges from lagooning, samples shall be filtered. The concentration of total suspended solids in unfiltered water samples shall not exceed 150 mg/l.



**Requirements for Discharges from Urban Wastewater Treatment Plants in respect of Total Phosphorus and Total Nitrogen**

No.	Parameters	Population equivalent	Concentration or treatment technology	Percentage of reduction	Reference method of analysis
1.	Total phosphorus (P <sub>kop</sub> )	< 2 000	appropriate treatment	–	Molecular absorption spectrophotometry
		2 000–10 000	appropriate treatment	10–15	
		10 000–100 000	2 mg/l	80	
		> 100 000	1 mg/l	80	
2.	Total nitrogen (N <sub>kop</sub> )	< 2 000	appropriate treatment	–	Molecular absorption spectrophotometry
		2 000–10 000	appropriate treatment	10–15	
		10 000–100 000	15 mg/l	70–80	
		> 100 000	10 mg/l	70–80	

4. Total nitrogen (N<sub>kop</sub>) means the sum of organic and inorganic nitrogen.

## II. Reference Methods for Monitoring and Evaluation of Results

5. Flow-proportional or time-based 24-hour wastewater samples shall be collected at the same well-defined point which is located in the outlet and, if the regional environmental board considers it necessary, in the inlet. The degradation of samples between collection and analysis shall be minimised. Samples shall be taken throughout a year as frequently as specified in the permit.

6. The following samples shall be taken in agglomerations:

6.1. not less than 12 samples during the first year, if the population equivalent in an agglomeration is from 2 000-9 999. If the treated wastewater conforms to the requirements of this Regulation in accordance with Paragraph 7 of this Annex, then not less than four samples must be taken during the year. If at least one of the samples fails to conform to the requirements of this Regulation, not less than 12 samples shall be taken next year;

6.2. not less than 12 samples during the year, if the population equivalent in an is from 10 000 to 49 999;

6.3. not less than 24 samples during the year, if the population equivalent in an agglomeration is from 50 000 and more.

[27 July 2010]

7. The treated wastewater shall be assumed to conform to the requirements of this Regulation, if analyses of samples thereof show the compliance of each parametric value specified and if:

7.1. the number of those samples, which fail to comply with the requirements specified in Table 1 of this Annex, do not exceed the number specified in Table 3 of this Annex;

7.2. in samples of wastewater taken under normal operating conditions, which fail to conform with the requirements, biological oxygen demand and chemical oxygen consumption demand differ from the concentration specified in Table 1 of this Annex not more than for 100%. The difference between the concentration of suspended solids determined and specified in Table 1 may be up to 150%;

7.3. the annual average values of concentration of total nitrogen and phosphorous complies with the value laid down in Table 2 of this Annex.

8. The total nitrogen concentration laid down in Table 2 of this Annex shall be the annual average value. Daily average value may be used, in evaluating the conformity of the nitrogen concentration with the requirements of this Regulation, if a greater load of pollution is not allowed in waters. Daily average value may not exceed 20 mg of total nitrogen ( $N_{kop}$ ) to a litre of wastewater in any sample which is taken during a period of time when the temperature of the outlet wastewater from a biological treatment plant is 12 °C or higher. If due to the climatic conditions it is not possible to ensure the temperature of wastewater at at least 12 °C, the treatment of wastewater shall be performed by an incomplete treatment cycle in conformity with the requirements referred to in Paragraphs 5, 6 and 7 of this Annex.

9. In evaluating the conformity of wastewater samples with the requirements specified, parameter values caused due to heavy rain and other unusual situation shall not be taken into consideration.

Table 3

**Maximum Number of those Samples which Fail to Conform with the Relevant Requirements  
(taking into account the series of samples taken during a year)**

Series of samples taken during a year	Maximum number of samples which fail to conform with the relevant requirements
1	2
4-7	1
8-16	2
17-28	3
29-40	4
41-53	5
54-67	6
68-81	7
82-95	8
96-110	9
111-125	10
126-140	11
141-155	12
156-171	13
172-187	14
188-203	15
204-219	16
220-235	17
236-251	18
252-268	19
269-284	20
285-300	21
301-317	22
318-334	23
335-350	24
351-365	25

### III. Typical Domestic Wastewater

Table 4

#### Parameters Characterising Typical Domestic Wastewater

Substance	Concentration (mg/l)
Biological oxygen demand (BOD5)	150–350
Chemical oxygen demand(COD)	210-740
Total suspended solids	120–450
Total phosphorus	6-23
Total nitrogen	20-80

10. Typical domestic wastewaters do not contain the dangerous substances referred to in Annexes 1 and 2 to this Regulation.

### IV. Industrial Sectors

11. The requirements referred to in Paragraph 45 of this Regulation shall apply to the following industrial sectors:

- 11.1. milk processing;
- 11.2. production of fruit and vegetable products;
- 11.3. production and bottling of non-alcoholic beverages;
- 11.4. processing of potatoes;
- 11.5. processing of meat;
- 11.6. production of beer;
- 11.7. production of alcohol and alcoholic beverages;
- 11.8. production of animal feed from products of plant origin;
- 11.9. production of gelatine and glue from the membranes, skin and bones of animals;
- 11.10. production of malt;
- 11.11. fish processing industry.

Minister for Environmental Protection  
and Regional Development

V. Makarovs